

AMENDMENTS

IN THE CLAIMS:

1. (Currently amended) A process for the production of ferric oxide precipitates having a selected particle size, the process comprising

(a) obtaining an aqueous feed solution comprising iron solubilized in one of nitric acid, sulfuric acid, and hydrochloric acid, the aqueous feed solution having a pH ranging from about 0.25 to about 2.5; and

(b) subjecting the aqueous feed solution to a combination of

(i) a temperature from about 100°C to about 300°C,

(ii) a seeding ratio from about 20% to about 2000%, wherein the seeding ratio is a ratio of a weight of a seed solid to a weight of an expected unseeded precipitate product, and wherein the selected particle size of the ferric oxide precipitates is smaller than a particle size of the ferric oxide precipitates obtained with a seeding ratio of 0%, and

(iii) pressures ranging from about 40 psig to about 1300 psig

to obtain ferric oxide precipitates of the selected particle size from about 0.1 to about 10 microns.

2. (Cancelled)
3. (Cancelled).

4. (Original) The process of claim 1 wherein the temperature is from about 175°C to about 240°C.
5. (Cancelled).
6. (Original) The process of claim 1 wherein the seeding ratio is from about 50% to about 500%.
7. (Cancelled).
8. (Original) The process of claim 1 wherein the selected particle size is from about 0.15 to about 2.5 microns.
9. (Original) The process of claim 1 wherein the ferric oxide precipitates are obtained in from about one minute to about 6 hours.
10. (Original) The process of claim 1 wherein the ferric oxide precipitates are obtained in from about 30 minutes to about 1 hour.
11. (Cancelled).
12. (Original) The process of claim 1 wherein said process is conducted at a pressure of from about 100 to about 500 psig.
13. (Cancelled).
14. (Original) The process of claim 1 wherein the ferric oxide precipitates are obtained from a feed solution comprising iron solubilized in nitric acid.
15. (Currently amended) The process of claim 1 [[13]] wherein the feed solution has an iron concentration of from about 5 g/L up to the onset of crystallization of a ferric salt.

16. (Currently amended) The process of claim 1 [[13]] wherein the feed solution has an iron concentration of from about 10 g/L to about 100 g/L.

17. (Currently amended) The process of claim 1 [[13]] wherein the feed solution has an iron concentration of from about 30 g/L to about 60 g/L.

18. (Currently amended) The process of claim 1 [[13]] wherein the feed solution has a free acid concentration of from about 5 [[0]] g/L to about 150 g/L.

19. (Currently amended) The process of claim 1 [[13]] wherein the feed solution has a free acid concentration of from about 30 g/L to about 70 g/L.

20. (Original) The process of claim 1 wherein the ferric oxide precipitates have an L* of about 40 to about 60.

21. (Original) The process of claim 1 wherein the ferric oxide precipitates have an L* of about 49 to about 55.

22. (Original) The process of claim 1 wherein the ferric oxide precipitates have an a* of about 10 to about 40.

23. (Original) The process of claim 1 wherein the ferric oxide precipitates have an a* of about 19 to about 33.

24. (Original) The process of claim 1 wherein the ferric oxide precipitates have an b* of about 5 to about 35.

25. (Original) The process of claim 1 wherein the ferric oxide precipitates have an b* of about 12 to about 28.

26. (Original) The process of claim 1 conducted in a batch or a continuous fashion.

27. (Original) The process of claim 1 wherein the ferric oxide precipitates have a smooth surface texture.